

the surface are so many cones projecting outwards; it is these elongated cells that give the organ its velvet-like appearance. But these cells, although presenting the disposition of the epidermal cells of some velvet-like flowers, and offering stomata here and there, do not form a true epidermis; they form, if I may so express myself, an epidermis in a rudimentary state, for there is no cuticle, unless close to the base of the inflated portion, or certainly from the basal third to the apex. From this fact, it is easy to understand how, as was remarked by M. Ad. Brongniart, the heat is greater in this part than anywhere else, since the air acts upon an almost naked tissue, which can absorb it without any obstacle."—*Ann. des Sciences Naturelles*, 3rd Ser. xvi. p. 250.

METEOROLOGICAL OBSERVATIONS FOR DEC. 1852.

*Chiswick*.—December 1. Overcast: rain. 2. Overcast. 3. Fine. 4, 5. Densely clouded. 6. Overcast. 7. Rain. 8. Foggy: rain: clear at night. 9. Clear and fine. 10. Low clouds: rain: densely overcast. 11. Exceedingly fine. 12. Fine: overcast: rain. 13. Rain: uniformly overcast. 14. Cloudy: clear at night: rain. 15. Rain: cloudy: clear. 16. Clear: fine, with sun: thunder, lightning and heavy rain at night. 17. Partially overcast: fine: boisterous, with lightning at night. 18. Clear and fine: extensive and sudden rise of barometer. 19. Slight rain: overcast. 20. Fine: densely clouded: clear at night. 21. Exceedingly fine. 22. Overcast: rain. 23. Overcast. 24. Rain: drizzly: overcast. 25. Very fine: overcast. 26. Fine: very fine: boisterous, at times quite a hurricane at night. 27. Very boisterous: large white clouds: clear at night. 28. Clear and fine. 29. Fine: overcast. 30. Overcast: fine: clear. 31. Very fine.

Mean temperature of the month .....	46°·54
Mean temperature of Dec. 1851 .....	38·88
Mean temperature of Dec. for the last twenty-six years ...	39·69
Average amount of rain in Dec. ....	1·52 inches.

*Boston*.—Dec. 1. Fine: rain P.M. 2. Fine. 3. Fine: rain P.M. 4. Cloudy: rain A.M. 5. Cloudy. 6, 7. Cloudy: rain A.M. 8. Cloudy: rain A.M. and P.M. 9. Fine: rain P.M. 10. Cloudy: rain A.M. 11. Fine. 12. Cloudy. 13. Cloudy: rain A.M. and P.M. 14. Fine. 15. Cloudy: rain A.M. 16. Fine: rain P.M. 17, 18. Fine. 19. Cloudy: rain A.M. 20, 21. Cloudy. 22. Cloudy: rain A.M. and P.M. 23. Fine. 24. Cloudy. 25. Fine: rain A.M. 26. Fine. 27. Fine: rain and stormy A.M. 28. Fine. 29. Cloudy. 30. Cloudy: rain A.M. 31. Fine.

*Sandwick Manse, Orkney*.—Dec. 1. Showers A.M. and P.M. 2. Showers A.M.: showers, aurora P.M. 3. Bright A.M.: cloudy, aurora P.M. 4. Damp A.M.: cloudy P.M. 5. Showers A.M.: showers, aurora P.M. 6. Rain A.M.: showers, aurora P.M. 7. Bright A.M.: clear, aurora P.M. 8. Cloudy A.M. and P.M. 9. Cloudy A.M.: clear P.M. 10. Rain A.M.: showers, aurora P.M. 11. Showers A.M.: rain P.M. 12. Drizzle A.M.: cloudy P.M. 13. Clear, frost A.M.: clear, aurora P.M. 14. Bright, frost A.M.: drizzle P.M. 15. Damp A.M.: clear P.M. 16. Clear, frost A.M.: drizzle P.M. 17. Sleet-showers A.M. and P.M. 18. Cloudy, frost A.M. and P.M. 19. Lightning, rain A.M.: cloudy P.M. 20. Cloudy A.M. and P.M. 21. Cloudy A.M.: snow-showers P.M. 22. Clear, frost A.M.: cloudy P.M. 23. Clear A.M. and P.M. 24. Cloudy A.M.: showers P.M. 25. Cloudy A.M.: sleet-showers P.M. 26. Bright A.M.: hazy P.M. 27. Cloudy A.M.: drizzle P.M. 28. Showers A.M.: fine P.M. 29. Cloudy A.M.: shower P.M. 30. Drops A.M.: shower P.M. 31. Showers A.M.: showers, thunder and lightning P.M.

Mean temperature of Dec. for twenty-five years .....	41°·20
Mean temperature of this month .....	40·74
Average quantity of rain in Dec. for six previous years .....	3·86 inches.